



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/US99/19902 <b>(22) International Filing Date:</b> 31 August 1999 (31.08.99) <b>(30) Priority Data:</b> 60/098,413 31 August 1998 (31.08.98) US <b>(71) Applicant (for all designated States except US):</b> THE RE-SEARCH FOUNDATION OF THE STATE UNIVERSITY OF NEW YORK [US/US]; P.O. Box 9, Albany, NY 12201-0009 (US). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> McKINNON, David [AU/US]; 27 Braemer Road, East Setauket, NY 11733 (US). DIXON, Jane, E. [AU/US]; 27 Braemer Road, East Setauket, NY 11733 (US). <b>(74) Agent:</b> LIN, Maria, C., H.; Morgan & Finnegan LLP, 345 Park Avenue, New York, NY 10154 (US).	<b>(81) Designated States:</b> AT, AU, BR, CA, CN, HU, IL, JP, KR, MX, NO, NZ, PL, RO, SG, US, ZA, Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
<b>(54) Title:</b> MAMMALIAN <i>elk</i> POTASSIUM CHANNEL GENES  <b>(57) Abstract</b>  The present invention is directed to the isolation, cloning and sequencing of mammalian <i>elk1</i> , <i>elk2</i> , and <i>EAG2</i> K channel genes. The amino acid sequences of the expressed proteins are also provided. Information on the distribution of the gene and their expression products in various relevant nervous system tissue is also provided. The gene and protein sequences and the distribution pattern information is helpful in the research and development of pharmaceuticals with specific action on the different K channels.		